

ADDITIONS TO THE FLORA OF
WASHINGTON COUNTY, MAINE

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ABSTRACT

The continued increase of logging roads makes interior Washington County, Maine, more readily accessible to the botanist. Ten species are reported for the first time from Washington County, including eight native species, one introduced species, and one hybrid. Several of these species are considered rare in Maine. Sawtelle Heath in Baileyville (Woodland) is suggested for further study.

Key Words: Range extensions, Washington County, Maine

During the summers of 1988, 1989 and 1990, we conducted botanical field work for analysis of alternative routes for a proposed transmission line from New Brunswick to Bangor, Maine. Botanical work carried out in interior eastern Maine in Aroostook, Penobscot, Hancock, and Washington Counties.

Recent and ongoing construction of logging haul roads throughout the interior portions of Washington and Hancock Counties to service the forest products industry has greatly enhanced access to a large area previously not well botanized. The Stud Mill Road, a private thoroughfare from Baileyville (Woodland) to Milford, provides ready access to many unorganized townships as well as interesting botanizing. It is not surprising, therefore, that additions to the known flora of the area were discovered. Even so, several stations for conspicuous, if uncommon, species were found in historically botanized and accessible areas near Woodland and Princeton.

To our knowledge, the species mentioned below have not previously been recorded from Washington County. None is listed in *The Revised Check-list of Vascular Plants of Maine* (Richards, Hyland, and Eastman, 1983). Records of the Critical Areas Program of the State Planning Office have been checked for those species on *Maine's List of Rare, Threatened, or Endangered Species* (Dibble et al., 1989). Voucher specimens have been variously distributed as noted in individual accounts.

***Equisetum variegatum* Schleich.**

Variegated scouring-rush, *Equisetum variegatum*, was collected twice in Washington County. It is abundant on disturbed soil of

a recently logged area west of Grand Falls Road, ca. six miles north of Woodland, Baileyville Township (*Gilman 89044*, MAINE, VT); and occasional in a ditch along a logging road, ca. one mile north of the Stud Mill Road west of Huntley Brook, Plantation 21 (*Gilman 89137*, MAINE, VT). This species appears to be colonizing suitable habitats in eastern Maine at a rapid rate; it was additionally collected from roadside ditches and beneath powerlines in Penobscot, Aroostook, and Hancock Counties, and was observed at several sites along the Stud Mill Road.

***Cystopteris bulbifera* (L.) Bernh.**

A large population of the calciphilic bulblet bladder-fern, *Cystopteris bulbifera*, occurs along a vernal stream that is a tributary of Big Wallamatogue Stream, ca. 1500 feet south of the Stud Mill Road in Township 27 (T27 ED BPP) (*Gilman 89012*, MAINE, VT). Associated with *Cystopteris* were *Adiantum pedatum* L. and *Athyrium thelypteroides* (Michx.) Desv., both uncommon in eastern Maine.

***Polystichum* × *potteri* Barrington**

The wholly anomalous presence of the hybrid holly fern, *Polystichum* × *potteri*, in a lowland and wetland situation, a northern white cedar swamp in Township 27 (T27 ED BPP), is remarkable. A single large, vigorous plant was observed at an elevation of 270 feet, ca. 2000 feet north of the Stud Mill Road, one mile west of Clifford Stream (*Gilman 89054*, VT). The hybrid is normally montane, usually being found on rich slopes below talus (Barrington, 1986). One parent, *Polystichum acrostichoides* (Michx.) Schott, is common in the area; the other parent, *Polystichum braunii* (Spenner) Fee, has not been recorded from Washington County and was not observed in the area. It is typically a species of mountainous terrain, although it is reported from relatively low elevations in Nova Scotia (Roland and Smith, 1969).

***Cypripedium reginae* Walt.**

Two populations of showy lady's-slipper, *Cypripedium reginae*, were discovered under northern white cedar: along the southeast end of Sawtelle Heath in Baileyville, ca. six miles north of Wood-

land (*Gilman 89055*, MAINE), and on the north side of Pocomoonshine Mountain, Princeton (*Gilman 89046*, MAINE). Both stations are comprised of large clumps as well as scattered individuals. Closely associated with this species, as elsewhere in the northeast, is alder-leaved buckthorn, *Rhamnus alnifolia* L'Her.

Malaxis brachypoda (Gray) Fern.

White adder's-mouth, *Malaxis brachypoda*, has historically been considered rare in Maine, and throughout its range (Eastman and Gawler, 1985). A single individual was observed in Township 27 (T27 ED BPP), growing with small patches of *Cystopteris bulbifera* as noted above (*Gilman 89100* [photograph], MAINE). Case (1987) remarked that its habitat is wet, limy soil where competing vegetation is not well established, as is the condition at this station.

Goodyera pubescens (Willd.) R. Br.

A small population of downy rattlesnake plantain, *Goodyera pubescens* was found on Seavey Ridge in Plantation 21 (*Gilman 88167*, MAINE). This population is more than sixty miles from currently known stations in the Penobscot River valley. A group of eight to ten rosettes occurs in a beech-hemlock grove, ca. 300 feet north of the Stud Mill Road. Hinds (1986) reported that this species was once collected in New Brunswick but has not been seen there since 1888; it is possible that this station represents the easternmost population of this orchid, which is frequent or common in more southern locations.

Betula pumila L.

Dwarf birch, *Betula pumila*, was found on Sawtelle Heath near Grand Falls Road in Baileyville. Most of this peatland is a coalesced dome heath (*sensu* Worley, 1980) dominated by sphagnum and ericaceous shrubs. Wetter areas around the perimeter support a greater diversity of species, including a tiny population of *Betula pumila* (*Gilman 88150*, MAINE, VT). Only three small shrubs were observed in spite of an extensive search. No other calciphilic species were noted on the bog mat, although several occur in the cedar swamps along the southern edge of the heath.

***Pyrola asarifolia* Michx.**

One such calciphilic species (referred to above) is *Pyrola asarifolia*. A large population (several hundred stems) exists here, associated with *Osmunda regalis* L., *Osmunda cinnamomea* L., *Toxicodendron rydbergii* (Small) Greene, *Mitella nuda* L., and other common species (Gilman 89046, MAINE). *Pyrola asarifolia* has not previously been recorded from Washington County.

The *Cypripedium*, *Betula*, and *Pyrola* which occur at Sawtelle Heath may fairly be regarded as extensions or outliers of the flora of eastern Aroostook County, which is typically calciphilic and boreal. Several other such species, not new to Washington County, occur here as well, including *Cypripedium calceolus* L. (Gilman 89042, MAINE) and *Carex vaginata* Tausch. The entire Sawtelle Heath complex of wetlands, which includes northern white cedar swamps, raised heath, lagg, pools, and kettlehole bogs, may be recommended for further investigation.

***Vicia sepium* L. and *Gnaphalium sylvaticum* L.**

Other species not previously recorded from Washington County but not rare in Maine include: *Vicia sepium*, adventive in fields along the St. Croix River and roadsides, Calais (Gilman 89041, MAINE, VT); and *Gnaphalium sylvaticum*, occasional and apparently adventive on an old logging road, ca. one half mile east of Huntley Brook, Plantation 21 (Gilman 88168, VT).

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